



Docket No. 1670.1015

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Yun Soo CHOE et al.

Serial No. 10/652,493

Group Art Unit: 3742

Confirmation No. 2730

Filed: September 2, 2003

Examiner: Sang Yeop Paik

For: HEATING CRUCIBLE FOR ORGANIC THIN FILM FORMING APPARATUS

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

**Mail Stop AF**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

This is in response to the Final Office Action mailed October 12, 2006, and having a period for response set to expire on January 12, 2007, and the Advisory Action mailed on January 4, 2007.

Pursuant to 1296 OG 67 and 1303 OG 21, the applicants request review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a Notice of Appeal.

The review is requested for the following reasons.

1. Chow (U.S. Patent No. 5,157,240), Chandler (U.S. Patent No. 2,799,764), and Isaacson et al. (Isaacson) (U.S. Patent No. 3,842,241) do not disclose or suggest the "heat-resistant layer" features of independent claim 1 and dependent claim 23 at least for the reasons set forth on pages 7-9 of the Request for Reconsideration After Final Rejection of December 11, 2006.

The rejection of claims 1 and 23 is apparently based on an incorrect application by the Examiner of the proposition set forth in MPEP 2112.01 that "[w]hen the structure recited in the

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reference is substantially identical to that of the claims, claimed properties or functions are presumed to be inherent" (see MPEP pages 2100-49 and 2100-50). Here, the structure recited in claims 1 and 23 is a "heat-resistant layer," while the structure recited in Chow is protective layers 25 and 25'. However, the Examiner has ignored the structural recitation of a "heat resistant layer" in claims 1 and 23 and has interpreted claims 1 and 23 as if they recited a "thin film type layer" based on paragraph [0035] of the specification of the present application as originally filed which states that "the heat-resistant layer 46 . . . is formed as a thin film type."

2. Chow, Chandler, and Isaacson do not disclose or suggest the "reflective layer" features of independent claim 1 and dependent claim 24 at least for the reasons set forth on pages 9-12 of the Request for Reconsideration After Final Rejection of December 11, 2006.

The rejection of claims 1 and 24 is apparently based on an incorrect application of MPEP 2112.01 by the Examiner similar to that discussed above in point 1.

3. Chow, Chandler, and Isaacson do not disclose or suggest the feature "wherein the entire cover heater is constituted by a single wire pattern formed over the entire top surface of the cover, the single wire pattern of the entire cover heater having a positive terminal at a first end of the single wire pattern and a negative terminal at a second end of the single wire pattern" recited in dependent claim 2, or the feature "wherein the entire body heater is constituted by a single wire pattern formed over at least the entire outer side wall of the main body, the single wire pattern of the entire body heater having a positive terminal at a first end of the single wire pattern and a negative terminal at a second end of the single wire pattern" recited in dependent claim 18, at least for the reasons set forth on pages 13 and 14 of the Request for Reconsideration After Final Rejection of December 11, 2006.

The rejection of claims 2 and 18 is apparently based at least in part on an incorrect interpretation by the Examiner that the phrase "is constituted by" in claims 2 and 18 means "comprises," which it clearly does not when interpreted in light of the specification as it must be pursuant to MPEP 2111.03 (see "Other Transitional Phrases" on MPEP pages 2100-45 and 2100-46). FIGS. 4A-4C and 5 of the present application show a cover heater 43 that is described at least in paragraphs [0028], [0030], and [0031] of the specification. FIG. 5 of the present application shows a body heater 53 that is described at least in paragraphs [0037] and [0038] of the specification.

4. Chow, Chandler, and Isaacson do not disclose or suggest the feature "wherein the insulating material forming the cover has a good heat radiation property" recited in dependent claim 7, or the feature "wherein the insulating material forming the main body has a good heat radiation property" recited in dependent claim 25, at least for the reasons set forth on pages 14-16 of the Request for Reconsideration After Final Rejection of December 11, 2006.

The rejection of claims 7 and 25 is apparently based on an incorrect application of MPEP 2112.01 by the Examiner similar to that discussed above in point 1.

5. Chow, Chandler, and Isaacson do not disclose or suggest the feature "wherein the cover heater is formed in a concentric pattern around the nozzle" recited in dependent claim 9 at least for the reasons set forth on pages 16-18 of the Request for Reconsideration After Final Rejection of December 11, 2006.

6. Chow, Chandler, and Isaacson do not disclose or suggest the features "wherein the cover heater is constituted by a sprayed heating block on the cover" and "wherein the sprayed heating block is constituted by a sprayed heat emitting material on the cover" recited in dependent claim 16 at least for the reasons set forth on pages 18 and 19 of the Request for Reconsideration After Final Rejection of December 11, 2006.

7. Chow, Chandler, and Isaacson do not disclose or suggest the features "wherein the cover heater is a single-layer cover heater" and "wherein the body heater is a single-layer body heater" recited in dependent claim 29, or the features "wherein the single-layer cover heater is the only cover heater on the cover" and "wherein the single-layer body heater is the only body heater on the main body" recited in dependent claim 30, at least for the reasons set forth on pages 19-21 of the Request for Reconsideration After Final Rejection of December 11, 2006.

8. Chow, Chandler, and Isaacson do not disclose or suggest the feature "wherein the heat-resistant layer blocks heat generated by the cover heater from being transferred outside the heating crucible" recited in dependent claim 31 at least for the reasons set forth on page 21 of the Request for Reconsideration After Final Rejection of December 11, 2006.

9. Dependent claims 4, 11-13, 17, 21, and 22 are patentable over Chow, Chandler, and Isaacson at least for the reasons set forth on page 21 of the Request for Reconsideration After Final Rejection of December 11, 2006.

10. Dependent claims 3, 14, and 19 are patentable over Chow, Chandler, Isaacson, and Kano et al. (Kano) (U.S. Patent No. 6,242,719) at least for the reasons set forth on page 22 of the Request for Reconsideration After Final Rejection of December 11, 2006.

11. Dependent claims 8, 15, and 26 are patentable over Chow, Chandler, Isaacson, and Bichrt (U.S. Patent No. 6,162,300) at least for the reasons set forth on pages 22 and 23 of the Request for Reconsideration After Final Rejection of December 11, 2006.

12. Chow, Chandler, Isaacson, and Okuda et al. (Okuda) (U.S. Patent No. 4,804,823) do not disclose or suggest the features "wherein the cover heater is constituted by a sintered printed conductive paste on the cover" and "wherein the conductive paste comprises metal particles and metal oxide" recited in dependent claim 10 at least for the reasons set forth on pages 23-25 of the Request for Reconsideration After Final Rejection of December 11, 2006.

The rejection of claim 10 is apparently based on an incorrect interpretation by the Examiner that the phrase "metal particles" in claim 10 means "particles comprising metal" which is contrary to the plain English meaning of the phrase "metal particles."

13. Dependent claim 20 is patentable over Chow, Chandler, Isaacson, and Takagi (U.S. Patent No. 4,217,855) at least for the reasons set forth on page 26 of the Request for Reconsideration After Final Rejection of December 11, 2006.

14. Chow, Chandler, Isaacson, Chen et al. (Chen) (U.S. Patent No. 6,024,799), and Murakami et al. (Murakami) (U.S. Patent No. 5,728,223) do not disclose or suggest the feature "wherein the nozzle is a convergent-divergent nozzle through which the gaseous organic substance comes out from the main body in a diverging pattern, thereby enabling the heating crucible to produce a diverging pattern of the gaseous organic substance" recited in dependent claim 27 at least for the reasons set forth on pages 26-28 of the Request for Reconsideration After Final Rejection of December 11, 2006.

15. Chow, Chandler, Isaacson, Chen, and Murakami do not disclose or suggest the features "wherein the nozzle extends from a surface of the cover facing toward the main body to a surface of the heat-resistant layer facing away from the main body; wherein an entry opening of the nozzle through which the gaseous organic substance enters the nozzle is flush with the surface of the cover facing toward the main body; wherein an exit opening of the nozzle through which the gaseous organic substance exits from the nozzle is flush with the surface of the heat-

resistant layer facing away from the main body; and wherein the nozzle converges from the entry opening to a throat of the nozzle at a junction between the cover and the heat-resistant layer, and diverges from the throat of the nozzle to the exit opening" recited in dependent claim 28 at least for the reasons set forth on pages 28 and 29 of the Request for Reconsideration After Final Rejection of December 11, 2006.

In the Interview Summary for the personal interview conducted on December 28, 2006, the Examiner states that "[c]laim 28, however, upon reconsideration, was deemed distinguishable over the Chow reference."

If there are any additional fees associated with the filing of this paper, please charge the same to our Deposit Account No. 503333.

Respectfully submitted,

STEIN, MCEWEN & BUI, LLP

Date: \_\_\_\_\_

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By: \_\_\_\_\_



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